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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/582,724

06/13/2006

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EXAMINER

STORMER, RUSSELL D

ART UNIT

PAPER NUMBER

3617

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/582,724	<b>Applicant(s)</b> CAPPELLOTTO, GUIDO	
	<b>Examiner</b> Russell D. Stormer	<b>Art Unit</b> 3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 1,3-16,22-24,26-28 and 30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2, 17-21, 25, 29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/13/06</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### ***Election/Restrictions***

Applicant's election without traverse of the invention of Group II and the species of figures 6 and 7 in the reply filed on April 4, 2008 is acknowledged.

Applicant states that claims 2 and 17-21 read on the elected embodiment. It has been determined that claims 25 and 29 also depend from claim 2 and read on the elected embodiment. Claims 2, 17-21, 25 and 29 will be examined on the merits.

Claims 1, 3-16, 22-24, 26-28, and 30 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention or species, there being no allowable generic or linking claim. Election was made **without** traverse.

### ***Information Disclosure Statement***

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

### ***Drawings***

The drawings are objected to because:

The reference character 7 is not found in figure 1 as described on page 7 of the specification. It does not appear in any other figures, either.

In figure 2, the lead line from the reference character 21 points to the spoke nipple and not the hole in the rim as described in the specification.

In figure 3, the reference character 31 is used for the facing surfaces of two different elements. An additional reference character must be provided for one of the surfaces. See 37 CFR 1.84(p)(4).

In figure 7, the lead line of the reference character 35 appears to point to the o-ring and not the cylindrical wall of the seating as described in the specification.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “further sealing means” as described in claim 26 must be shown or the feature(s) canceled from the claim(s).

**No new matter should be entered.**

The drawings are objected to under 37 CFR 1.83(a) because they fail to show the “gas taper threads” as described on pages 2, 3, and 4 of the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d).

**No new matter should be entered.**

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter.

The specification does not describe the "further sealing means... inserted between the thread of the holes in said rim and the thread on the shank of said nipples" as set forth in claim 26.

See 37 CFR 1.75(d)(1) and MPEP § 608.01(o).

The abstract of the disclosure is objected to because of the use of the legal term "means." Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities: On page 4 the facing surfaces of the spoke and the nipple are provided with the same reference numeral (31). Each element should have its own reference character.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 26 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Inasmuch as the "further sealing means... inserted between the thread of the holes in said rim and the thread on the shank of said nipples" set forth in claim 26 is not shown or described, the specification is non-enabling for this feature as it does not enable one of ordinary skill in the art to make and use the invention of claim 26.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3, 13, 18, 25, and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 3, 13, and 25, the use of the term “type, such as in “single-channel type” renders the claims indefinite because it is not clear which types of rims or seals would be included in the groups of this types, and the metes and bounds of the claims cannot be determined.

In claim 18, the “said seal” lacks antecedent basis.

In claim 26, no sealing means has been set forth in claim 2, so the “further sealing means” of claim 26, which implies there is a first sealing means, is indefinite as there is no antecedent basis for a first sealing means.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2 and 25 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Leo et al.

As shown in figures 4, 5, and 6, Leo et al discloses a wheel comprising a plurality of spokes connected to a single channel rim. Each spoke 4 includes a nipple 20

inserted through an opening 41' in the rim in a gas tight fit, with the nipple having internal threads 29 in a blind hole 28 to threadedly receive the threaded end 12 of the spoke in a manner that would create an axial bidirectional locking means.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leo et al in view of Vetterlein.

Leo et al meets all of the limitations of claim 2 as set forth above, and is further applied in that the bidirectional locking means includes a shoulder 25 on the shank of the nipple 20. With respect to claims 18-20, Leo et al further discloses the opening in the rim to include a shoulder 42' to receive or seat an annular sealing member 14.

The bidirectional locking means of Leo et al does not include threads on the outside of the nipple which can engage a female thread, and does not show a nut screwed onto the shank of the nipple.

Vetterlein teaches two means of coupling a spoke to the rim of a wheel. The first means, as shown in figure 1, includes a nipple having a threaded hole which receives a threaded portion of a collar 4 of a spoke to bidirectionally lock the spoke in place on the rim. Like Leo et al, this arrangement does not include a nut threaded onto the shank of



the nipple. The second arrangement of Vetterlein, shown in figure 4, comprises a nipple having a threaded hole to receive the threaded end of a spoke, and a nut or “union” having female threads being threaded onto the threaded shank of the nipple.

From this teaching it would have been obvious to substitute a bidirectional locking assembly having a nut threaded onto the shank of the nipple such as that taught by in figure 4 of Vetterlein as this would use the nut to tension the spoke with respect to the nipple, and would reduce the strain on the spoke and produce a larger threaded contact area (between the nut and the shank of the nipple) which would be less likely to produce stripped threads. Further, the substitution of one well-known spoke and nipple coupling arrangement for another would have been well-within the realm of ordinary skill in the art, and the results of such substitution would be predictable.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leo et al in view of Chiang et al.

Leo et al meets the limitations of claim 2 as noted above, but the spokes are not disclosed as being made of a light alloy.

Chiang et al teaches a spoke 60 that is made of steel, and a spoke 60' that is made of aluminum alloy. See figures 5 and 6 and lines 14-36 of column 1.

From this teaching it would have been obvious to those of ordinary skill in the art that the spokes of a wheel may be made of steel or aluminum alloy, and to choose aluminum alloy for the spokes of Leo et al would have been obvious in order to reduce

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the weight of the wheel, or to improve the wheel's resistance to corrosion, as is well-known. The results of using one material over the other would have been predictable.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references show other spoked wheels.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell D. Stormer whose telephone number is (571) 272-6687. The examiner can normally be reached on Monday through Friday, 9 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Morano can be reached on (571) 272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Russell D. Stormer/  
Primary Examiner, Art Unit 3617